LISTING OF CLAIMS

1.   (**Currently Amended**) A method comprising:

measuring one or more performance characteristics associated with each of at least a

subset of a plurality of targets in a wireless communication system**, each target a**

communication target with which to engage in two-way communication; and

selectively building one or more clusters, each cluster including one or more target(s) and

which share **common** wireless communication channel(s), based at least in part on the

performance characteristics.

2.   (Original) A method according to claim 1, wherein the performance characteristics

include one or more of a signal to interference and noise ratio (SINR), a signal to noise ratio

(SNR) a received signal strength indication (RSSI), a bit-error rate (BER) and/or a frame-error

rate (FER).

3.   (Original) A method according to claim 1, wherein each cluster is comprised of up to M

targets and each communication channel accommodates up to N targets, the method of building

one or more cluster(s) further comprising:

assigning at least a subset of up to N targets to a first communication channel resource;

and

selectively assigning subset(s) of a remaining (M-N) targets to share additional

communication channel resource(s) within the cluster.

4.   (Original) A method according to claim 1, wherein measuring the performance

characteristics comprises:

initializing K sets of weights;

estimating the signal to interference and noise ratio (SINR) for each target for each of the

K weights; and

selecting one of the K weights for each of the targets that maximizes each targets SINR,

to produce K clusters of targets based, at least in part, on each target's SINR.

5.   (Original) A method according to claim 4, further comprising:

identifying a target within each of the cluster(s) with a lowest SINR; and

generating a new weight for each of the cluster(s) based, at least in part, on the SINR of

the identified target within the cluster(s).

6.   (Original) A method according to claim 5, wherein the new weight is a least-squares

weight associated with the identified target.

7.   (Original) A method according to claim 5, further comprising:

estimating the performance characteristics of each of the target(s) within each of the

cluster(s) using the generated new weight for each of the cluster(s); and

regrouping targets according to the weights that provide the best SINR for each of the

targets.

8.   (Original) A method according to claim 7, further comprising:

iteratively repeating the steps of identifying, generating, estimating and regrouping until

no significant improvement in the estimated performance characteristics of the target(s) is

identified.

9.   (Original) A method according to claim 8, further comprising:

selectively monitoring at least a subset of target(s) for changing performance

characteristics; and

iteratively repeating the steps of identifying, generating, estimating and regrouping until no significant improvement in the estimated performance characteristics of the target(s) is identified.

10. (Original) A storage medium comprising content which, when executed by an accessing computing appliance, implements a method according to claim 1.

11. **(Currently Amended)** A communication station comprising:

wireless communication resources; and

a communication agent, coupled with the wireless communication resources, to populate cluster(s) with one or more **communication** target(s) based, at least in part, on one or more estimated performance characteristics associated with the targets **that share a common wireless communication channel in the cluster(s)**, and to develop a weighting value for at least a subset of the populated clusters to generate a transmission beam to target(s) within the cluster(s) based, at least in part, on the developed weighting value.

12. (Original) A communication station according to claim 11, wherein the wireless communication resources include at least a transmitter subsystem.

13. (Original) A communication station according to claim 11, the communication agent comprising:

a clustering engine, to measure one or more performance characteristics associated for each of at least a subset of a plurality of targets in a wireless communication system, and to selectively build one or more clusters, each cluster including one or more target(s) and sharing a wireless communication channel, based at least in part on the performance characteristics.

14. (Original) A communication station according to claim 13, wherein the clustering engine initializes K sets of weights, estimates the signal to interference and noise ratio (SINR) for each

target for each of the K weights, and selects one of the K weights for each of the targets that maximizes each targets SINR, to produce K clusters of targets based, at least in part, on each targets SINR.

15. (Original) A communication station according to claim 14, further comprising the clustering engine identifies a target within each of the cluster with a lowest SINR, and dynamically generates a new set of weights based, at least in part, on the SINR of the identified target.

16. (Original) A communication station according to claim 15, wherein the clustering engine calculates the new weight as a least-squares weight associated with the identified target.

17. (Original) A communication station according to claim 15, wherein the clustering engine estimates the performance characteristics of each of the target(s) within each of the cluster(s) using the generated new weight for each of the cluster(s), and regroups targets in clusters according to the weights that provide the best SINR for each of the targets.

18. (Original) A communication station according to claim 17, wherein the clustering engine iteratively repeats the process until further re-grouping of targets fails to produce a significant improvement in the estimated performance characteristics of the targets.

19. (Original) A transceiver according to claim 18, the communications agent further comprising:

a beamforming engine, responsive to the clustering engine, to modify one or more attributes of a transmission signal to form a beam directed at target(s) within one or more cluster(s) based, at least in part, on the generated weight value(s) associated with each cluster.

20. (Original) A communication station according to claim 11, further comprising:

a memory subsystem having stored therein content; and

control logic, coupled with the memory subsystem, to access and execute at least a subset of the stored content to implement the communications agent.

21.   (**Currently Amended**) In a wireless communication system implementing general packet radio services (GPRS), a method comprising:

populating cluster(s) with one or more **communication** target(s) based, at least in part, on measured performance characteristics of each of the one or more target(s) **that share a common wireless communication channel in the cluster(s)**; and

developing a weighting value for at least a subset of the populated clusters to generate a transmission beam to target(s) within the cluster(s) based, at least in part, on the cluster spatial signature.

22.   (Original) A method according to claim 21, further comprising:

modifying one or more parameters of a wireless communication link signal to form the transmission beam to target(s) within the clusters based, at least in part, on the developed weight values.

23.   (Original) A method according to claim 22, further comprising:

transmitting the formed transmission beam to an associated one or more cluster(s).

24.   (Original) A method according to claim 21, wherein populating cluster(s) comprises:

measuring one or more performance characteristics associated for each of at least a subset of a plurality of targets in a wireless communication system; and

selectively building one or more clusters, each cluster including one or more target(s) and sharing a wireless communication channel, based at least in part on the performance characteristics.

25. (Original) A method according to claim 24, wherein measuring the performance characteristics comprises:

initializing K sets of weights;

estimating the signal to interference and noise ratio (SINR) for each target for each of the K weights; and

selecting one of the K weights for each of the targets that maximizes each targets SINR, to produce K clusters of targets based, at least in part, on each targets SINR.

26. (Original) A method according to claim 25, further comprising:

identifying a target within each cluster with a lowest SINR; and

generating a new weight for each of the cluster(s) based, at least in part, on the SINR of the identified target.

27. (Original) A method according to claim 26, wherein the new weight is a least-squares weight associated with the identified target.

28. (Original) A method according to claim 26, further comprising:

estimating the performance characteristics of each of the target(s) within each of the cluster(s) using the generated new weight for each of the cluster(s); and

regrouping targets according to the weights that provide the best SINR for each of the targets.

29. (Original) A method according to claim 28, further comprising:

iteratively repeating the steps of identifying, generating, estimating and regrouping until no significant improvement in the estimated performance characteristics of the target(s) is identified.

30. (Original) A storage medium comprising content which, when executed by an accessing computing device, causes the device to implement a method according to claim 21.